

1. A purified and isolated human protein Z-dependent protease inhibitor characterized as:

- Leu Ala Pro Ser Pro Gln Ser Pro Glu Thr  
1 5 10

Pro Ala [SEQ ID NO:16], and

2. A method of inhibiting factor Xa in serum or plasma comprising contacting said serum or plasma with an effective inhibitory amount of the human Protein Z-dependent protease inhibitor of Claim 1.

3. A purified and isolated DNA molecule comprising a nucleotide sequence encoding the 423 amino acid sequence of SEQ ID NO: 8.

4. A purified and isolated DNA molecule of Claim 3 having the nucleotide sequence of SEQ ID NO: 7.

5. A purified and isolated protein Z-dependent protease inhibitor having the 423 amino acid sequence of SEQ ID NO: 8.

6. A method of inhibiting factor Xa in serum or plasma comprising contacting said serum or plasma with an effective inhibitory amount of the human protein Z-dependent protease inhibitor of Claim 5.

7. A method of inhibiting blood coagulation in a patient in need thereof comprising administering to said patient a coagulation inhibitor selected from the group consisting of protein Z, ZPI and a combination of protein Z and ZPI in an amount sufficient to inhibit blood coagulation.

8. The method of Claim 7 in which the coagulation inhibitor is protein Z.

9. The method of Claim 7 in which the coagulation inhibitor is ZPI.

10. The method of Claim 9 in which the ZPI has the 423 amino acid sequence of SEQ ID NO:8.

11. The method of Claim 7 in which the coagulation inhibitor is a combination of protein Z and ZPI.

12. The method of Claim 11 in which the ZPI has the 423 amino acid sequence of SEQ ID NO:8.

13. A pharmaceutical composition comprising protein Z and ZPI in a pharmaceutically acceptable carrier or diluent.

14. The composition of Claim 13 in which the ZPI has the 423 amino acid sequence of SEQ ID NO:8.